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ATTORNEY DOCKET NO. 052250-5019 *41*

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Joseph G. RADZIK

Application No.: 09/965,983

Filed: 28 September 2001

For: FERROUS PIPE COUPLINGS AND
PRELUBRICATED COUPLING
GASKETS

Group Art Unit: 3679

Examiner: G. Collins

U.S. Patent and Trademark Office
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Sir:

REQUEST FOR RECONSIDERATION
UNDER 37 C.F.R. § 1.111

In response to the non-final Office Action mailed May 05, 2004, for which the period for response is being extended through November 05, 2004 by the accompanying Petition for a three-month Extension of time, reconsideration of the application is requested in view of the following remarks.

The non-final Office Action mailed May 05, 2004 has been reviewed and the comments of the U.S. Patent and Trademark Office have been considered. No claim has been amended. Applicant respectfully requests reconsideration of the pending claims 1-23.

Applicant thanks Examiner Collins and Primary Examiner Nicholson for the courtesy of the personal interview conducted on July 15, 2004. During the interview, a

video of a prior art coupling that utilizes a wet grease lubricant and a coupling that embodies the claimed invention as a whole was shown. No agreement was reached at this interview.

The Office Action mailed on May 05, 2004 concludes that the claimed invention as a whole is obvious, as set forth in the following grounds of rejection:

- (a) Claims 1, 4-6, 9-10, 16, and 19-23 stand rejected under 35 U.S.C. § 103 as being unpatentable over U.S. Patent No. 6,302,450 to Dole *et al* ("Dole") in view of U.S. Patent No. 4,230,157 to Larsen *et al* ("Larsen") and U.S. Patent No. 3,999,825 to Cannon;
- (b) Claim 2, 3, 7, 8, 17, and 18 stand rejected under 35 U.S.C. § 103 as being unpatentable over Dole in view of Larsen and Cannon, as applied to claims 1, 5, and 16 above, and further in view of U.S. Patent No. 5,070,597 to Holt *et al* ("Holt");
- (c) Claims 11 and 15 stand rejected under 35 U.S.C. § 103 as being unpatentable over Dole in view of Larsen and Cannon, as applied to claim 10 above, and further in view of U.S. Patent No. 5,540,465 to Sisk;
- (d) Claim 12 stands rejected under 35 U.S.C. § 103 as being unpatentable over Dole in view of Larsen, Cannon, and Sisk, as applied to claim 11 above, and further in view of U.S. Patent No. 5,642,907 to Dole ("Dole '907"); and
- (e) Claims 13 and 14 stand rejected under 35 U.S.C. § 103 as being unpatentable over Dole in view of Larsen, Cannon, and Sisk, as applied to claim 11 above, and further in view of Holt.

I. No Suggestion, Teaching, or Reason to Combine References

Applicant respectfully asserts that none of the relied-upon references are appropriate to establish a *prima facie* case of obviousness of the claimed invention as a whole because one of ordinary skill in the art would not have been motivated to modify a gasket of Dole (i.e., a first type of component) with an unspecified lubricant to have a

dry powder lubricant (i.e., a sub-component) of the seal ring of Larsen (i.e., a second type of component) at a location shown on a band seal (i.e., a second type of component) of Cannon for the first type of component of Dole.

The Court of Appeal for the Federal Circuit has stated that in such situation where the first component of the primary reference is combined with a sub-component of the secondary reference that does not provide for a motivation or suggestion to combine the sub-component of the secondary reference with the first component of the primary reference, such combination of references to support a *prima facie* case of obviousness is improper. See, *Winner Int'l Royalty Corp., v. Ching-Rong Wang*, 202 F.3d 1340; 53 U.S.P.Q.2D (BNA) 1580 (Fed. Cir. 2000).¹ Because the Office Action proposes, in an obviousness determination, to combine one of the sub-components (i.e., dry powder lubricant) of the secondary reference of Larsen and to put it at a location shown in a third reference to Cannon for the first type of component (i.e., gasket) of Dole without providing for an adequate showing of motivation or suggestion to do so, the proposed combination of references fails to render obvious the claimed invention as a whole, as recited in claims 1, 5, 10, and 16.

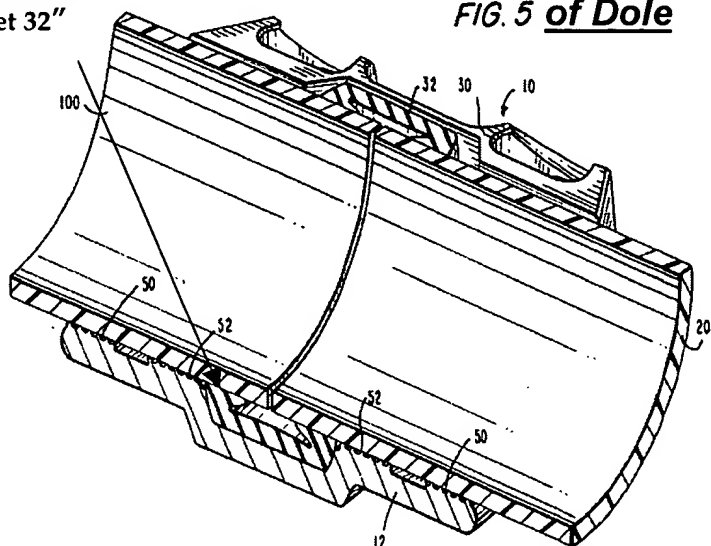
Each of the independent claims 1, 5, 10, and 16 recites, *inter alia*, a gasket with at least one flange that forms a seal with a pipe. The gasket has an inner circumferential side with at least one flange provided with a coating of dry powder lubricant on at least the inner circumferential side of the gasket so that the inner circumferential side of the gasket can contact a pipe. These features are not taught or suggested by Dole in view of Larsen and Cannon.

¹ In *Winner Int'l*, the Federal Circuit affirms the general principle that it is insufficient to establish obviousness based on the existence of separate elements of the invention in the prior art, absent some teaching or suggestion in the prior art to combine the elements. *Id* at 1349. In particular, the Federal Circuit confirmed the District Court's decision, which held that it was improper for the Board to render obvious a claimed invention to a product known commercially as "the Club®" in view of a combination of references, where the first reference showed and described a first type of steering wheel anti-theft device with a first type of locking mechanism (i.e., a first type of component with a first sub-component), and the second reference showed and described a second type of anti-theft device with a second type of locking mechanism (i.e., a second type of component with a second sub-component) without suggestion to combine the second sub-component with the first type of component.

Dole shows and describes a segmented, high-strength pipe coupling 10 for connecting two pipes 100 and 200. As shown in Figure 5 of Dole (reproduced below), the pipe coupling 10 has a lubricated gasket 32, i.e., the first component, with respective inner circumferential surfaces (not labeled) in contact with the exterior surface of each pipe (Dole at col. 5: 22-36). Dole, however, fails to show or describe the type of lubricant or its location on the gasket 32, as acknowledged in the Office Action.

"inner circumferential
surface of gasket 32"

FIG. 5 of Dole



Larsen is relied upon by the Examiner for the allegation that a "[d]ry powder lubricant is a suitable lubricant to use between a gasket and a pipe." Larsen, however, does not teach or suggest placing a lubricant, whether a wet lubricant or dry powder type lubricant, on the inner circumference (as annotated in Figure 1 of Larsen) of lip portion 7 of seal ring 3, which forms a seal with the outer surface of pipe 1a. In particular, Larsen provides, as shown in Figure 1 (reproduced below), a pipe end portion 1 with a circumferential groove 2 on which a sealing ring 3 is constrained within the groove 2 (Larsen at col. 5:26-48). The sealing ring 3 of Larsen has circumferential lip portions 6 and 7. Lubricant 9 or 9', which can be a wet lubricant or dry powder lubricant, is provided as interchangeable sub-components of the seal ring 3

to facilitate movement of various lip portions 6, 7 with respect to each other as the sealing ring 3 is compressed in the groove 2 when a second pipe 1a is inserted into the first pipe 1. Larsen specifically requires the lubricant (i.e., sub-components) to be placed in two places: (1) between the lip portion 6 of the stiffening body (i.e., lubricant 9'), and (2) between the lip portion 6 and the groove 2 (i.e., lubricant 9), as shown in Fig. 1 of Larsen.² See Larsen at col. 6: 7-21. Larsen thus fails to teach or suggest dry lubricant on a surface of a seal member that contacts a pipe.

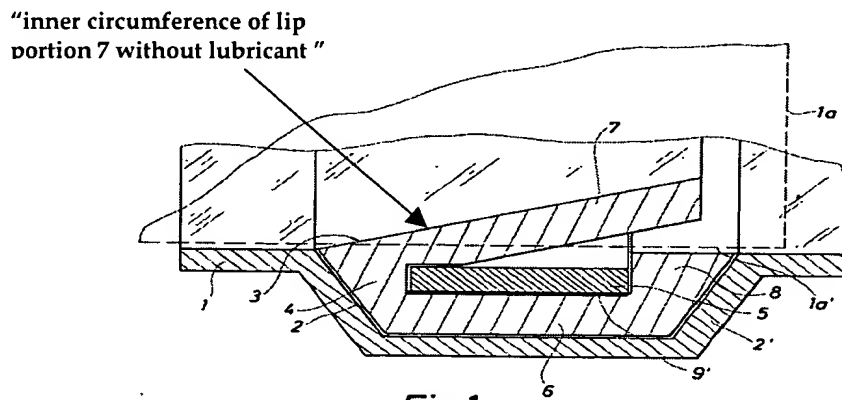
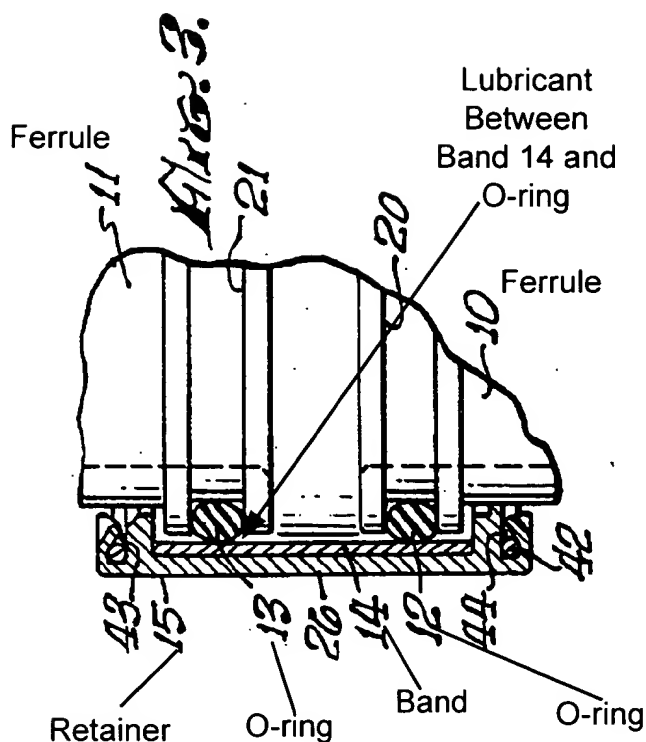


Fig. 1 **of Larsen**

Cannon is relied upon by the Examiner to show that a "conventional lubricant" can be placed at an inner surface of a sealing band in a fuel line coupling. Cannon shows, in Figure 3 (reproduced below) and describes a retainer assembly 15 retaining a pipe 18 or 19 with a multiple sealing arrangement (band 14 and O-ring 12 or 13) between a retainer band 26 and a ferrule 10 or 11. The inner surface of band 14 (a third type of component) can be provided with "conventional lubricant."

² Even though dry powder lubricant is recognized as suitable for use in the specific application of the pipe joint of Larsen, none of the relied-upon prior art shows or describes the use of a dry powder lubricant on the radially innermost surface of the member that forms a seal with a pipe.



Such conventional lubricant is disposed on the inner surface of band 14 for contact with the outer surface of O-ring 12 or 13 rather than the ferrules of pipe 18 or 19. Hence, Cannon still does not show or describe that this conventional lubricant is disposed on the inner surface of the O-ring 12 or 13 for contact with the outer surface of the pipe 18 or 19.

Consequently, Cannon does nothing to cure the deficiencies of Dole in view of Larsen. Absent the benefit of applicant's originally filed application—to provide dry lubricant on a gasket surface of Dole that engages a pipe—none of the prior art references to Dole, Larsen, and Cannon teach, suggest or motivate one of ordinary skill to combine the references in an attempt to provide for the claimed invention as a whole. Accordingly, in the absence of such suggestion or motivation to combine the references, the grounds of rejection under 35 U.S.C. § 103, as applied in the Office Action, are inappropriate.

II. No “Clear and Particular” Showing of Objective Evidence in the Office Action to Support the Conclusion of Obviousness

As held by the Federal Circuit, a finding or showing of the evidence in support of an obviousness determination under 35 U.S. C. § 103 must be “clear and particular.”

See, In re Dembiczak, 175 F3d 994, 999, USPQ2d 1614, 1617 (Fed. Cir. 1999). Broad conclusionary statements regarding the teaching of multiple references, standing alone, are not “evidence” to support the showing of obviousness. *Id.*

The Office Action concludes that it would be “common practice in the art to lubricate the entire circumference of a gasket” of Dole with “dry powder lubricant” based on Larsen and Cannon. This conclusion, however, is unsupported by objective evidence that is “clear and particular.” That is, the Office Action fails to articulate how this conclusion was reached as a matter of “common practice” so as to render the claimed invention as a whole obvious. Consequently, applicant respectfully submits that the burden elucidated by the Federal Circuit has not been met in the Office Action to provide for a “clear and particular” showing of objective evidence to place dry powder lubricant on the inner circumferential surfaces of the gasket 32 of Dole (i.e., at the flange surfaces of the gasket 32 of Dole) for contact with a pipe based on the teaching of Larsen and Cannon. *See In re Dembiczak* at 999.

Notwithstanding the lack of a clear and particular showing of objective evidence to combine Dole in view of Larsen and Cannon, applicant further submits that one of ordinary skill in the art would not have utilized the teaching of Larsen and Cannon in the gasket of Dole because of the distinct differences between the Dole, Larsen, and Cannon. In particular, Dole describes and shows in Figure 5 (reproduced above) a high-strength, segmented coupling 12, 14 with teeth 50, 52 that hold two pipes 100, 200 in a confronting arrangement together in the coupling 10. A gasket 32 provides a seal between the pipes 100, 200 and between the coupling 10 and the pipes 100, 200 of Dole. *See Dole* at col. 5: 19 and 29-31. The flanges of the gasket 30 of Dole contact the pipes 100, 200, respectively, to provide for a flared lip seal against an outer surface of the pipe,

as shown in Figure 7 (reproduced below). Dole, however, fails to show or describe dry powder lubricant on the flared lip surface in contact with a pipe.

Larsen shows and describes a sealing ring 3 with a stiffening ring 5 to hold and seal two pipes in a nested configuration (pipes 1 and 1a). The lip portion 7 of sealing ring 3 of Larsen is compressed by the exterior surface of the second pipe 1a so that a portion of the lip portion 7 contacts a portion of a bead 8, as shown in Figure 12 (reproduced below). Larsen provides for a folding seal arrangement. The folding seal arrangement of Larsen is shown without any lubricant on an inner surface that contacts with the outer surface of a pipe. Larsen thus fails to cure the deficiencies of Dole.

Cannon shows and describes a multiple-sealing arrangement for an aircraft fuel line coupling. In operation, a band 14 is positioned over the one of the pieces of tubing. The O-ring seals 12 and 13 are placed over respective ferrules. The band 14 is pushed over the O-ring seals 12 and 13 to form a seal with the O-rings, which form a seal with the ferrules when the retainer 15 is latched over the band 14. That is, Cannon provides a dual-seal: one between the band 14 and the O-ring 12 or 13 and another between the O-rings and the respective tubing 18 and 19 via the ferrules. Cannon, however, fails to show or describe that the conventional lubricant is disposed on the inner surface of a seal in contact with the outer surface of a pipe. Cannon, therefore, also fails to cure the deficiencies of Larsen or Dole.

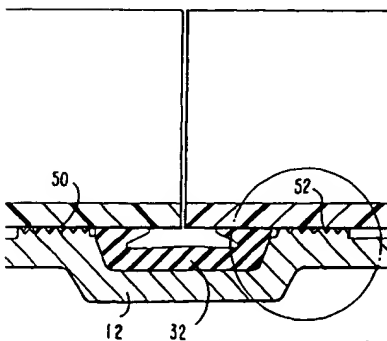


Fig. 7 Dole

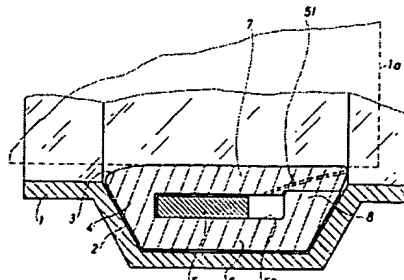


Fig. 12 Larsen

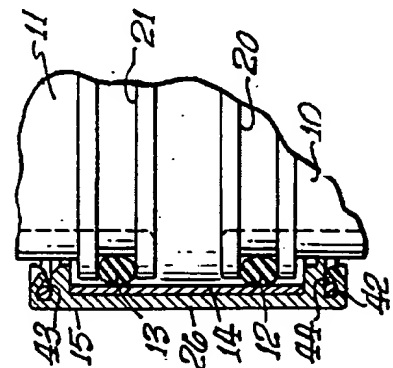


Fig. 3 Cannon

Thus, as shown above, the multiple-sealing arrangement of Cannon is distinct from the folding seal arrangement of Larsen or the flared lip seal arrangement of Dole.

Because the multiple-sealing arrangement of Cannon and folding seal of Larsen are configured differently than the flared lip seal of Dole, there is no suggestion in Dole, Larsen, or Cannon for a combination of the disparate elements picked from those available in these references, or any indication in these references of any basis for picking the particular elements in an attempt to render the claimed invention as a whole obvious.³ In view of the differences noted above between Dole, Larsen, and Cannon, applicant respectfully asserts that Dole, Larsen, and Cannon fail to teach or suggest the claimed invention as a whole.

Even if one of ordinary skill were to pick and choose features based on various references, such selection of features fails to teach or suggest all of the claimed features.⁴ That is, even when elements of the references are selected from the relied-upon prior art, none of the relied-upon prior art show or describe a dry powder lubricant on the radially innermost surface of the member that forms a seal with the outer surface of a pipe. Accordingly, claims 1, 5, 10, and 16 are patentable over Dole in view of Larsen and Cannon for at least this reason.

³ It is impermissible within the framework of section 103 to pick and choose from any one reference only so much of it as will support a given position, to the exclusion of other parts necessary to the full appreciation of what such reference fairly suggests to one of ordinary skill in the art. *In re Wesslau*, 353 F2d 238, 241, 147 USPQ 391, 393 (CCPA 1965); *See also In re Mercer*, 515 F2d 1161, 1165-66, 185 USPQ 774, 778 (CCPA 1975).

⁴ As noted at MPEP § 2143.03 (8th Ed., Rev. 2, May 2004), all of the claimed features must be taught or suggested in the relied-upon prior art. Where all of the claimed features are not taught or suggested by relied-upon prior art, then a *prima facie* case of obviousness has not been established. *In re Royka*, 490 F2d 981, 180 USPQ 580 (CCPA 1974).

III. The Additional References to Holt, Sisk, and Dole '907 Fail To Cure the Deficiencies of Dole in view of Larsen and Cannon

None of the prior art references to Holt, Sisk, or Dole '907 cures the deficiencies in the proposed combination of Dole in view of Larsen and Cannon. Each of the relied upon references fails to show or describe a coating of dry powder lubricant, at the time the invention was made, on at least the inner circumferential surface of the gasket so as to cure the above-noted deficiencies of Dole in view of Larsen and Cannon. In particular, Holt shows and describes in Figure 13 (reproduced below), an elastomeric double-walled tube 1 to connect two pipes 22 together. Holt states that the double walled tube 1 is provided with friction reducing means 4 disposed between the walls. See Holt at col. 8: 57-66. The friction reducing means 4 can be of a solid, semi-solid, or liquid lubricant. *Id* at col. 9: 26-28, col. 12: 1-18, 65-68, and col. 13: 3-15. The friction reducing means 4, however, is encapsulated entirely within the double-walled tube 1. That is, the double walled tube 1 of Holt fails to show or describe dry powder lubricant at the interface, i.e., sealing surface between the double walled tube 1 and the pipes 22. Thus, the tube 1 of Holt is similar to the sealing ring 3 of Larsen in that both Holt and Larsen fail to show or describe that any lubricant is used on the radially innermost surface in engagement with a pipe to form a seal. Similarly, Holt fails to cure the deficiencies of Cannon because the dry powder is encapsulated rather than exposed to a pipe surface. Therefore, Holt fails to cure the deficiencies of Dole in view of Larsen and Cannon.

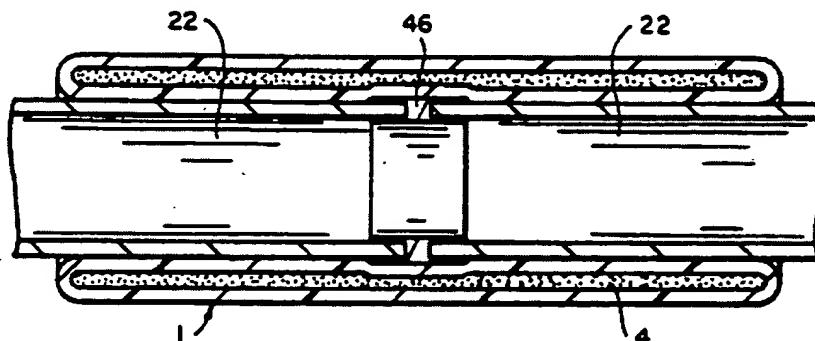


FIG. 13 OF HOLT

In relation to the teaching of a dry powder lubricant encapsulated within the tube 1 of Holt, the Examiner cites *In re Keller*, 642 F2d 413, 208 USPQ 871 (CCPA1981) for the proposition that the test for obviousness is what the combined teachings of the reference would have suggested to one of ordinary skill, and therefore, one of ordinary skill would recognize organic starch as a lubricant for the proposed combination of Dole in view of Larsen and Cannon. In contrast to the proposition of *In re Keller*, the Examiner's conclusion fails to point out how the references suggest, teach, or motivate one of ordinary skill to render the claimed invention obvious, without the benefit of Applicant's originally filed application. See e.g., *Interconnect Planning Corp. v. Feil*, 774 F2d 1132, 1138, 227 USPQ 543, 547 (Fed. Cir. 1985) (*Stating that "the invention must be viewed not with the blueprint drawn by the inventor, but in the state of the art that existed at the time."*). In this case, Holt fails to provide a suggestion, teaching, or motivation for one of ordinary skill in the art to utilize a dry powder lubricant on a sealing surface between a member and a pipe because Holt isolates the wet lubricant or dry powder lubricant from contact with any other member (except itself) by encapsulating the lubricant 4 within a continuous double walled tube 1. Hence, Holt actually teaches away from the claimed invention as a whole, which requires contact between the gasket, dry powder lubricant, and pipes. In view of the teachings of Holt, one of ordinary skill would not have been motivated, at the time the invention was made, to modify Dole in view of Larsen and Cannon based on Holt to provide a coating of dry powder lubricant at a specific location on a gasket. Thus, Dole, Larsen, Cannon, and Holt fail to support the Examiner's conclusion. Accordingly, claims 2, 3, 7, 8, 13, 14, 17, and 18 are patentable over Dole in view of Larsen, Cannon, and Holt.

Sisk shows and describes a pipe coupler 30 with clamping arms 32 and 34 for a gasket 150. See Sisk at col. 4: 54-64 and col. 5: 9-21. Sisk, however, fails to show or describe any lubricant anywhere on the gasket 150. Consequently, Sisk fails to teach or suggest a coating of dry powder lubricant, at the time the invention was made, on at least the inner circumferential surface of the gasket 150 such that Sisk would cure the

deficiencies of Dole in view of Larsen and Cannon. Accordingly, claims 11 and 15 are patentable over Dole in view of Larsen, Cannon, and Sisk.

Dole '907 shows and describes an end fitting 10 with an elastomeric seal 18. *See* Dole '907 at col. 4: 24-31. Dole '907, however, fails to show or describe any type of lubricant anywhere on the seal 18, much less a dry powder type lubricant. Consequently, Dole '907 fails to teach or suggest a coating of dry powder lubricant, at the time the invention was made, on at least the inner circumferential surface of the seal 18 such that Dole '907 would cure the deficiencies of Dole in view of Larsen, Cannon and Sisk. Accordingly, claim 12 is patentable over Dole in view of Larsen, Cannon, Sisk, and Dole '907.

For the reasons discussed above, applicant respectfully asserts that Dole, Larsen, Cannon, Holt, Sisk, or Dole '907, whether considered alone or in combination, fail to teach or suggest the claimed invention as a whole, as recited in claims 1-23.

Accordingly, claims 1-23 are patentable over the relied-upon prior art.

CONCLUSION

Based on the foregoing, applicant respectfully asserts that the claims are allowable because there is no motivation or suggestion to combine the relied-upon references, and all of the claimed features are not taught or suggested by Dole, Larsen, Cannon, Holt, Sisk, or Dole '907, whether considered alone or in combination thereof. Accordingly, applicant respectfully requests the withdrawal of the rejections and prompt allowance of all claims.

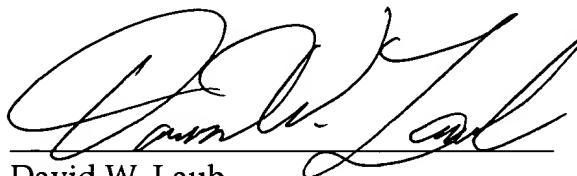
EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 50-0310. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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Dated: November 05, 2004

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